




PRODUCT INFORMATION

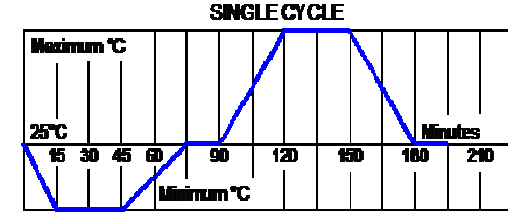
PART #	CEET160B140-50-408-20P7.6LR	Revision: 0-2011
---------------	------------------------------------	-------------------------



Electro-Magnetic Sound Transducer

DESCRIPTION	FEATURES	
<p>Challenge Electronics Electro-Magnetic Transducer, 16 mm Diameter, B type case (TOP Sound Port with PCB standoffs), 14 mm High, 50 Ohms Coil Impedance, 4 to 8 Vpp operation, minimum SPL of 85 dB(A) at: 6 Vpp @ 10 cm, 2,048 Hz. resonant Frequency, PC Pins 7.6 mm spacing Termination, washing Label, RoHS Lead Free Compliance</p>	<ul style="list-style-type: none"> • Expanded Operating Temperature • Washable • RoHS, Lead Free Compliant • ISO 9001 & TS16949 Certified 	

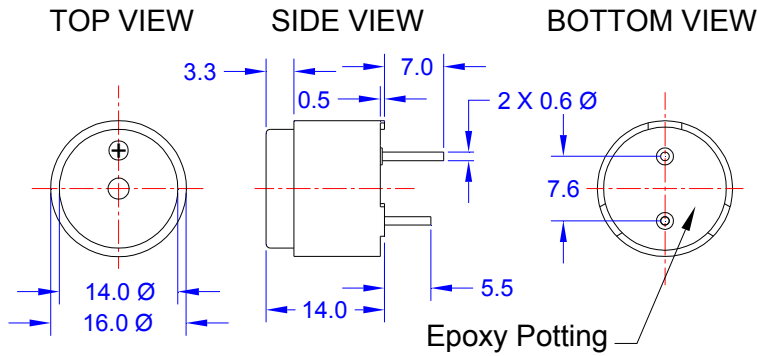
SPECIFICATIONS									
Operating Voltage	4.0 – 8.0 Vpp		Rated Voltage	6.0 Vpp		Resonant Frequency	2,048 Hz.		
Sound Pressure Level	Min. 85 dB(A), at: Rated Voltage, 10 cm, Resonant Frequency, Square Wave, 50% Duty Cycle								
Operating Current	40 mA, at: Rated Voltage, Resonant Frequency, Square Wave, 50% Duty Cycle								
Coil Resistance	50 ± 6 Ohms		Operating Temperature	-40°C to + 70°C		Storage Temperature	-40°C to +85°C		
Material	Case	B Style, Plastic, Noryl™, Black				Sound Port Direction	Top		
	Diaphragm					Sealing	Epoxy Potting		
	Termination	Two (2) PC Pins, 0.7 mm Diameter, Copper, Sn plated, Positive Pin 7 mm Long, Negative Pin 5.5 mm Long							
Physical Dimensions	Length or Diameter (L /D)	16.0 mm ø		Width (W)	Height (H)		14.0 mm	Pins Spacing	7.6 mm
Approximate Weight	5 grams	Removable Washing Label	Yes	Compliance	RoHS, Lead Free				

RELIABILITY					
Thermal Operating Temperature Test	96 hours continuous operation at Rated Voltage , at Maximum Rated Operating Temperature * 96 hours continuous operation at Rated Voltage , at Minimum Rated Operating Temperature *				
Thermal Storage Temperature Test	96 hours storage at Maximum Rated Storage Temperatures * 96 hours storage at Minimum Rated Storage Temperatures *				
Thermal Shock Test	<p>5 cycles of Minimum and Maximum Operating Temperature Each cycle shall be set per diagram below and is three (3) hours long *</p> <div style="text-align: center;">  <p>SINGLE CYCLE</p> <p>Maximum °C</p> <p>25°C</p> <p>Minutes</p> <p>15 30 45 60 90 120 150 180 210</p> <p>Minimum °C</p> </div>				
Humidity Test	96 Hours at +40°C±2°C. 90-95% RH *				
Insulation Test	A minimum of 10 MΩ, measured with 100 Vdc Insulation Resistance Meter, between the Electrical Terminals and the Transducer Case				
Vibration Test	2 Hours of at 0.75 mm with 10 to 55 Hz. vibration frequency to each of 3 perpendicular directions *				
Termination Strength	Maximum of 9.8 N (1.0 Kg) load pull test, applied to each terminal in axial direction for 10 seconds				
Drop Test	Dropped naturally from 750 mm height onto the surface of 40 mm wooden board, 3 axes (X,Y,Z) directions, 3 times (6 times total) *				
Solderability	Terminal leads are immersed in rosin for 5 seconds and then immersed in solder-bath of +270°C for 3±1 seconds				
Soldering Heat Resistance	Terminal leads are immersed, up to 1.5 mm from part case, in rosin for 5 seconds and then immersed in solder-bath of +350±5°C for 3±0.5 seconds or +260±5°C for 10±1 seconds				
* Reliability Test Performance	Parts should conform to original performance within ±3dB, after 3 hours of recovery period				
Operation Life Test	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Continuous</td> <td>240 hours of continuous operation, at Rated Voltage, each at Minimum & Maximum Rated Operating Temperatures</td> </tr> <tr> <td>Intermittent</td> <td>One thousand (1,000) hours of: 1 minute ON 4 minutes OFF cycle, at Room Temperature, and Rated Voltage</td> </tr> </table>	Continuous	240 hours of continuous operation, at Rated Voltage , each at Minimum & Maximum Rated Operating Temperatures	Intermittent	One thousand (1,000) hours of: 1 minute ON 4 minutes OFF cycle, at Room Temperature, and Rated Voltage
Continuous	240 hours of continuous operation, at Rated Voltage , each at Minimum & Maximum Rated Operating Temperatures				
Intermittent	One thousand (1,000) hours of: 1 minute ON 4 minutes OFF cycle, at Room Temperature, and Rated Voltage				
Warranty	For a period of one (1) year from date of shipping under normal operations conditions This warranty does not apply to products damaged through misuse, abuse, improper installation, alteration, rework, or attempt to repair				

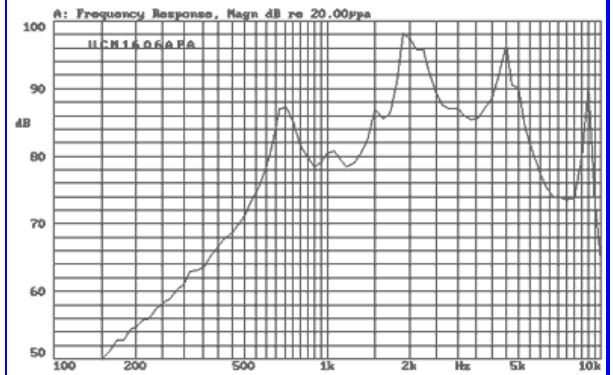


DIMENSIONS

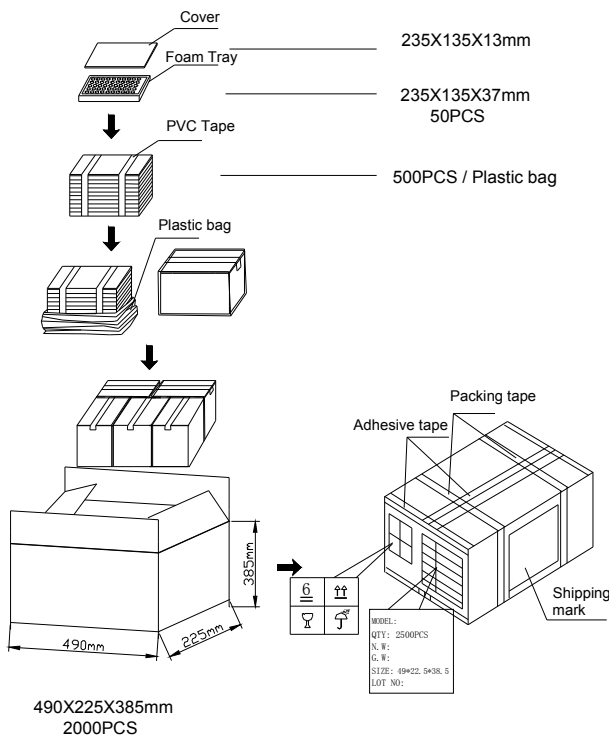
Units in: mm, Tolerance: ± 0.5mm unless specified otherwise.



SPL vs. FREQUENCY RESPONSE



PACKAGING



MARKING		TRAY	
Bundle		X1	23.5 cm
Customer PN	Dimensions	Y1	13.5 cm
Other PN (if required)		Z1	1.3 cm
Quantity	Quantity	50	
Lot and/or Date Code	BUNDLE		
Bundle Number	Dimensions	X2	23.5 cm
Shipping Box		Y2	13.5 cm
Customer Part Number	Z2	16 cm	
Other PN (if required)	Quantity	500	
Quantity	SHIPPING BOX		
Lot and/or Date Code	Dimensions	X3	49 cm
PO Number		Y3	22.5 cm
Net Weight	Z3	38.5 cm	
Gross Weight	Number of Bundles	4	
Box Number	Quantity	2,000	
of Number of Boxes	Approximate Weight		
Made in China			